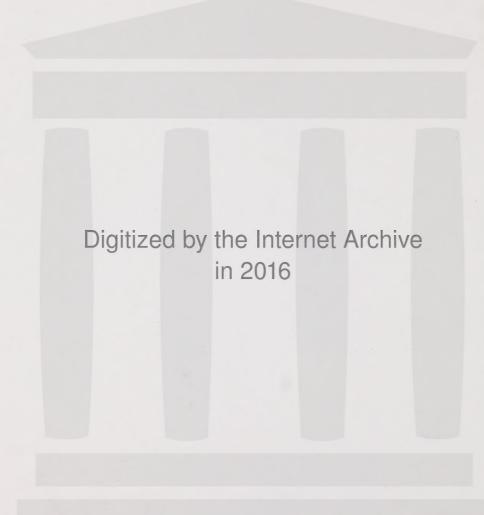


HIV/AIDS EDUCATION IN SCHOOLS EVALUATION

TEACHER PROFILE





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HIV/AIDS EDUCATION IN SCHOOLS EVALUATION:

SERIES REPORT: 2

TEACHER PROFILE

by

Brenda Munro, Ph. D. and Maryanne Doherty-Poirier, Ph. D.

Department of Family Studies

Faculty of Home Economics

University of Alberta

for

Alberta Health

Edmonton, Alberta

July, 1992

Copies of the following publications

HIV/AIDS Education in Schools Evaluation: Research Report, Series Report: 1 ISBN 0-7732-1044-X

HIV/AIDS Education in Schools Evaluation: Summary Report

HIV/AIDS Education in Schools Evaluation: Teacher Profile, Series Report: 2 ISBN 0-7732-1045-8

HIV/AIDS Education in Schools Evaluation: Grade 9 Student Profile, Series Report: 3 ISBN 0-7732-1046-6

HIV/AIDS Education in Schools Evaluation: Grade 11 Student Profile, Series Report: 4 ISBN 0-7732-1047-4

and the set of all the reports: HIV/AIDS Education in Schools Evaluation: Series Report 1-4 ISBN 0-7732-1048-2

can be ordered, at no charge, from: The Provincial AIDS Program Alberta Health 7th Floor, 10030 – 107 Street Edmonton, Alberta T5J 3E4 Phone (403) 427-0836 Fax (403) 422-6663

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Introduction

HIV/AIDS — a life-threatening, sexually transmitted disease — is presenting some serious challenges to our society. Major studies, such as the Canada Youth and AIDS Study (1988) and The Creative Development Research on Health Promotion and AIDS Prevention (1989), have found that many Canadian adolescents are sexually active and are therefore at significant risk of contracting HIV/AIDS and other sexually transmitted disease (STD).

To help ensure that young people have access to information on HIV/AIDS, Alberta Health and Alberta Education commissioned a research study on the relative effectiveness of different instructional strategies and resources. The study was conducted in the spring of 1990 in selected grade 9 and grade 11 classrooms throughout Alberta.

The study methodology and results are reported in detail in the full report, entitled HIV/AIDS Education in Schools Evaluation Project: Research Report, Series Report: 1. Key findings of the study were that the school is the students' first and preferred source of information on HIV/AIDS, and that instruction provided primarily by a teacher in regular classroom activities had consistent effects on student knowledge and attitudes about HIV/AIDS. In addition, the combined use of two student print learning resources, AIDS: What Young Adults Should Know and AIDS: The Choices and Chances, was most consistently effective in supporting HIV/AIDS instruction for grade 9 and 11 students. Since the study yielded a great deal of useful information, three additional focus papers were published as well. This document, HIV/AIDS Education in Schools Evaluation: Teacher Profile, Series Report: 2, is one of the focus papers. This paper reports information collected from the 68 teachers who provided HIV/ AIDS instruction to classes of students who participated in the study. The other two focus papers are:

HIV/AIDS Education in Schools Evaluation: Grade 9 Student Profile, Series Report: 3

HIV/AIDS Education in Schools Evaluation: Grade 11 Student Profile, Series Report: 4.

Methodology

The procedures and methods for this study are discussed in detail in *HIV/AIDS Education in Schools Evaluation: Research Report, Series Report:* 1.

The design of this study was quasi-experimental. It consisted of information collected from four groups of students, which were: pre-treatment, precontrol, post-treatment, and post-control. There were two groups of teachers, which were: post-treatment and post-control. The teacher post-treatment data is provided in this report, unless noted otherwise.

Where student information is given in this report, only post-treatment student responses are included. Thus, the sample size of students consists of 949 grade 9 students and 793 grade 11 students. (See HIV/AIDS Education in Schools Evaluation: Grade 9 Student Profile, Series Report: 3 and HIV/AIDS Education in Schools Evaluation: Grade 11 Student Profile, Series Report: 4 for further student information.)

In the full research report, information on students is reported geographically: students were identified as "rural," "urban" and "metropolitan." Because the sample of teachers is smaller (n=68), only two geographical groups are used: "rural" and "metro." The categories of "urban" and "metropolitan" are combined and identified as "metro."

The data for this study were collected using the following instruments:

- 1) Alberta AIDS Survey: Description of Class Form,
- 2) teacher questionnaire,
- 3) student (grade 9 and grade 11) pre-test questionnaire (February), and
- 4) student (grade 9 and grade 11) post-test questionnaire (March).

Copies of the Alberta AIDS Survey: Description of Class Form, teacher questionnaire, and the student (grade 9 and grade 11) post-test questionnaire (March) are included in Appendix B of the HIV/ AIDS Education in Schools Evaluation: Research Report, Series Report: 1.

The questionnaires for the students and teachers were similar so that responses could be compared when appropriate. The differences in the questionnaires follow.

- In one set of attitude questions, teachers were asked their attitudes on four HIV/AIDS-related teaching topics and two condom concepts. Students were asked similar questions about the two condom concepts, a third question related to condoms, and two additional questions about their intentions regarding future sexual behaviour.
- 2) Students were asked more questions than teachers about the student print resources .
- 3) Teachers were asked to comment on the teacher's guides.
- 4) Students were asked about their two main sources, their preferred source, and their actual source of information about HIV/AIDS. Teachers were asked where they thought students received information.
- 5) Students were asked if they had viewed the CBC television presentation, *Talkin' about AIDS*. Teachers were not asked this question.
- Students were asked questions about the organization of HIV/AIDS classes, and teachers were not.

The types of statistical analyses used in this study varied. For example, the analyses included Pearson r correlation, t-tests, one-way analysis of variance with Scheffe comparisons, and chi square. The alpha level of significant set for the analyses was .05.

Scores obtained from teacher and student responses on knowledge and attitude questions are used in this study. Higher knowledge scores reflect a higher level of knowledge. A higher attitude score based on a "tolerance scale" reflects more tolerant attitudes towards, for example, people with HIV/AIDS, education on HIV/AIDS, and condom use.

Limitations

The limitations of this study are outlined in the HIV/AIDS Education in Schools Evaluation: Research Report, Series Report: 1. They include:

- Confidentiality of students was of the highest priority, and anonymity was maintained throughout the study. Therefore, individual student scores could not be matched before and after HIV/AIDS instruction. Instead of individual student measures of change, class measures had to be used in the initial analysis to determine the effect of HIV/AIDS instruction. Since the number of students who participated in the study is much higher than the number of classes, analyzing student change scores would probably have resulted in more statistically significant findings.
- The sample used in this study was not random, as intended, because the teachers for the control group were largely self-selected. The self-selection for the control group may have been related to a prior commitment to the scheduling of HIV/ AIDS instruction, such as arrangements for guests on specific dates that coincided with the dates of the study.
- The size and nature of the Alberta school system limits the possibility of evaluating a "treatment." At the time of the study, 441,725 Alberta students were enrolled in grades 1 to 12; there were 24,973 full-time teachers; 2,003 schools; and 140 jurisdictions. These large numbers presented administrative challenges. As well, the local autonomy of school boards prevented a controlled "treatment." Jurisdictions chose instructional strategies for offering HIV/AIDS instruction that were most appropriate for their students.

These limitations should be considered when generalizing to specific populations.

Teacher Variables

Description of Teachers

The information in this report is based on the responses of the 68 teachers who provided HIV/ AIDS instruction. These teachers taught in school jurisdictions that agreed to participate in the study. Twenty-nine of the teachers taught in rural schools and 39 taught in metro schools. There were 38 grade 9 teachers and 30 grade 11 teachers.

Gender

- The sample included 38 grade 9 teachers: 53% were female, 44% were male, and 3% did not respond.
- Of the 30 grade 11 teachers, 50% were female teachers, 47% were male, and 3% did not respond.

Figure 1: Gender of Grade 9 Teachers

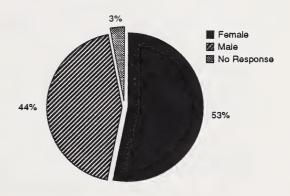
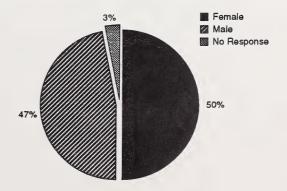


Figure 2: Gender of Grade 11 Teachers



Discussion

The proportion of teachers in this sample from rural and metro schools was very close to the proportions that exist in the general population. Rural schools were only slightly over-represented in this sample. Male and female teachers were almost equally represented.

Teacher Preparation

Types of Training

In the questionnaire the following types of teacher training specific to HIV/AIDS were identified:

- · university courses
- · professional journal articles
- inservice sessions offered by:
 - Alberta Education
 - STD Control Education Unit of Alberta Health
 - local health unit
 - · school jurisdiction
 - · a publisher.

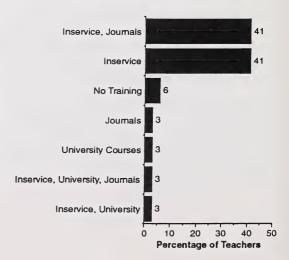
For purposes of analysis the types of training were categorized as:

- · university courses
- · professional journal articles
- · inservice sessions
- · combinations of these types.

Grade 9 Teachers

- 88% of grade 9 teachers reported that they had received HIV/AIDS inservice training, either by itself or in combination with another type of training.
- 3% of the teachers had inservice training combined with university courses and reading professional journal articles, another 3% of teachers had inservice training and a university course, and 41% had inservice training combined with reading professional journal articles.
- 41% of grade 9 teachers reported having only inservice training, provided by at least one of the following:
 - Alberta Education
 - STD Control Education Unit of Alberta Health
 - · local health unit
 - · school jurisdiction
 - · a publisher.
- 6% of grade 9 teachers reported they had no training at all.
- 3% of grade 9 teachers reported they read professional journal articles only.
- 3% of grade 9 teachers had only university training.

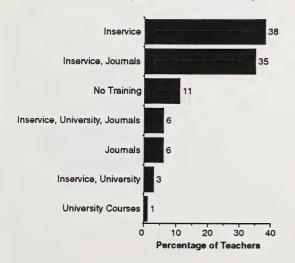
Figure 3: Grade 9 Types of Teacher Training



Grade 11 Teachers

- 82% of grade 11 teachers reported that they had received inservice training, either by itself or in combination with another type of training.
- 6% of grade 11 teachers had inservice training combined with university courses and reading professional journal articles, another 3% of teachers had inservice training and a university course, and 35% had inservice combined with reading professional journal articles.
- 38% of grade 11 teachers reported having only inservice training. It was provided by at least one of the following:
 - Alberta Education
 - · STD Control Education Unit of Alberta Health
 - · local health unit
 - · school jurisdiction
 - a publisher.
- 11% of grade 11 teachers reported they had no training at all.
- 6% of grade 11 teachers reported they read professional journal articles only.
- 1% of grade 11 teachers had only university training.

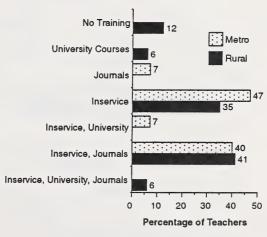
Figure 4: Grade 11 Types of Teacher Training



Grade 9 Teachers — Metro and Rural

- 94% of the grade 9 metro teachers reported that they had received inservice training, either by itself or in combination with another type of training.
- 82% of the grade 9 rural teachers reported that they had received inservice training, either by itself or in combination with another type of training.
- 12% of the grade 9 rural teachers reported no training; none of the metro teachers reported no training.
- 7% of the grade 9 metro teachers reported reading professional journals only, and none of the rural teachers reported this.
- 6% of the grade 9 rural teachers said they had completed university courses only, but none of the metro teachers reported this.

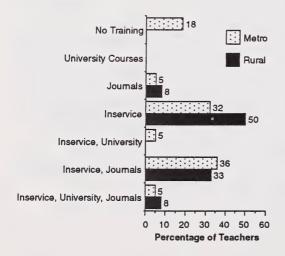
Figure 5: Grade 9 Metro and Rural — Types of Teacher Training



Grade 11 Teachers - Metro and Rural

- 91% of the grade 11 rural teachers reported that they had received inservice training, either by itself or in combination with another type of training.
- 78% of the grade 11 metro teachers reported that they had received inservice training, either by itself or in combination with another type of training.
- 18% of the grade 11 metro teachers reported no training; none of the rural teachers reported they did not have training.
- 8% of the grade 11 rural teachers reported reading professional journals only, and 5% of the metro teachers reported this.
- none of the grade 11 (both rural and metro) teachers said they had completed university courses only.

Figure 6: Grade 11 Metro and Rural — Types of Teacher Training



Discussion

A majority of teachers had inservice training only or inservice training in combination with other types of training. The percentage of teachers that had no training or had only read journal articles was low, but higher than expected (9% of grade 9 teachers and 17% of grade 11 teachers). The largest proportion of teachers with no training were found among grade 9 rural teachers (12%) and grade 11 metro teachers (18%).

Perceptions of Adequacy of Training

Grades 9 and 11 Teachers

- 55% of grade 9 and 52% of grade 11 teachers rated their training as fairly adequate.
- 15% of grade 9 teachers and 27% of grade 11 teachers rated their training as very adequate.
- 21% of grade 9 teachers and 12% of grade 11 teachers rated their training as not very adequate.
- 9% of grade 9, as well as 9% of grade 11 teachers, rated their training as not at all adequate.

Figure 7: How Did Grade 9 Teachers Rate the Adequacy of Their Training?

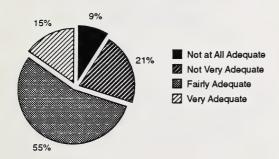
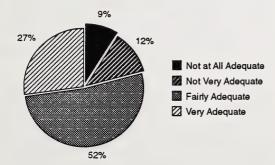


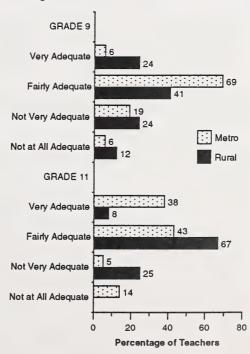
Figure 8: How Did Grade 11 Teachers Rate the Adequacy of Their Training?



Metro and Rural Teachers

- 75% of the metro grade 9 teachers and 81% of the metro grade 11 teachers rated their training as either very adequate or fairly adequate.
- 65% of the rural grade 9 teachers and 75% of rural grade 11 teachers rated their training as either very adequate or fairly adequate.
- 25% of the metro grade 9 teachers and 19% of the metro grade 11 teachers rated their training as inadequate, that is, either not very adequate or not at all adequate.
- 36% of the rural grade 9 teachers rated their training as inadequate, that is, either not very adequate or not at all adequate.
- 25% of the rural grade 11 teachers rated their training as not very adequate, and none of the rural grade 11 teachers rated their training as not at all adequate.

Figure 9: How Did Grade 9 and 11 Metro and Rural Teachers Rate the Adequacy of Their Training?

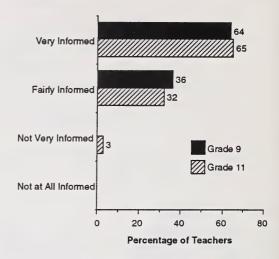


Discussion

Most grade 9 and grade 11 teachers thought that the training that they had received was fairly adequate or very adequate. However, there were teachers who felt their training was not at all adequate or not very adequate.

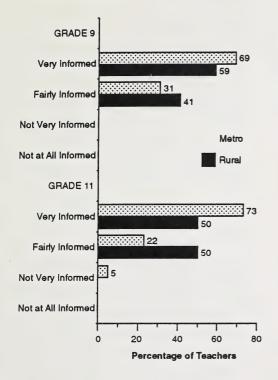
Perceptions of Being Informed About HIV/AIDS Prevention

Figure 10: Perceptions of Grade 9 and 11 Teachers about Being Informed about HIV/AIDS Prevention



- 100% of the grade 9 teachers and 97% of the grade 11 teachers perceived themselves to be fairly well or very well informed about the prevention of HIV/AIDS. None of the teachers perceived themselves to be "not at all" informed.
- When teacher responses were classified as metro and rural, 5% of metro grade 11 teachers perceived themselves as not very informed about the prevention of HIV/AIDS. All other metro and rural teachers perceived themselves to be informed about the prevention of HIV/AIDS.

Figure 11: Perceptions of Grade 9 and 11 Metro and Rural Teachers about Being Informed about HIV/AIDS Prevention



Discussion

Despite some indication of dissatisfaction with adequacy of training, almost all of the teachers felt that they were "very" or "fairly" informed about HIV/AIDS protection. However, more metro than rural teachers felt very informed about HIV/AIDS prevention.

Summary

The proportions of male and female teachers in the sample were almost equal. While the sample was not completely random, based on this finding it may be suggested that HIV/AIDS education is being offered by both men and women without predominance of one gender.

Inservice training was received by a majority of

teachers in the sample. However metro, rural, and grade differences did exist. Twelve percent of rural grade 9 teachers and 18% metro grade 11 teachers had received no inservice training. This means that approximately one in six of these teachers had received no inservice. In contrast, all of metro grade 9 teachers, and all of rural grade 11 teachers had received inservice in the area of HIV/AIDS education. Because the lack of inservice training is not consistently found in rural, metro, grade 9 or grade 11 groups of teachers, it would seem that inservice is available to the various groups. Further study is needed to identify why some teachers have no inservice training.

While a majority of teachers evaluated their training as adequate, 30% of grade 9 teachers and 21% of grade 11 teachers evaluated their training as "not very" or "not at all" adequate. Thus, one in four grade 9 teachers and one in five grade 11 teachers did not feel their training was adequate. The greatest concern about inadequate HIV/AIDS training was reported by rural grade 9 teachers (36%). Overall, grade 11 teachers evaluated their training more positively than grade 9 teachers. This finding is surprising because a higher proportion of grade 9 than grade 11 teachers had inservice training. This may indicate dissatisfaction with inservice training; however, further research is needed.

In contrast to the teachers' evaluation of the adequacy of their training, almost all teachers (i.e., metro, rural, grade 9 and grade 11) felt they were informed about HIV/AIDS prevention. While some teachers felt their training was not adequate, almost all teachers felt informed. It appears therefore that teachers are receiving the information they need about HIV/AIDS prevention through inservice or the resources available to them.

Knowledge and Attitudes

Description of Overall Knowledge and Attitudes

The level of HIV/AIDS-related, overall knowledge was assessed by requesting teachers to respond to questions using checklists. The knowledge questions had right and wrong answers based on the curricular materials. Each question included a number of items. There were 39 items that assessed their knowledge about what HIV/AIDS is, the transmission and prevention of HIV infection, and sexual behaviour which involved risk of HIV transmission. A higher score (out of a possible total of 39) indicated a higher level of knowledge.

 Teachers of grade 9 had a mean overall score of 35, with a standard deviation of 2.1, and grade 11 teachers had a mean overall score of 35, with a standard deviation of 2.7.

HIV/AIDS-related, overall attitudes were measured using closed questions with four-category, Likert-type scale responses. Teachers responded to a "tolerance scale" consisting of 12 items. The questions measured teachers' tolerance on sensitive issues regarding the presence of HIV/AIDS infection in the community. The total possible score for overall attitudes was 48.

• Teachers of grade 9 had a mean overall score of 39, with a standard deviation of 5.2, and grade 11 teachers had a mean overall score of 38, with a standard deviation of 5.2.

Relationship Between Teacher Overall Knowledge and Teacher Overall Attitudes

The level of teachers' overall knowledge correlated significantly with the level of teachers' overall attitudes. For teachers of both grades 9 and 11, those who had higher overall knowledge scores also had more tolerant HIV/AIDS-related attitudes.

Teacher Overall Knowledge and Attitudes Related to Student Overall Knowledge and Attitudes

 For teachers of both grades 9 and 11, their level of overall knowledge and attitudes did not significantly correlate with the students' level of overall knowledge and attitudes.

Teacher Specific Attitudes about HIV/AIDS-Related Instructional Ideas

The teachers were requested to indicate attitudes about specific instructional ideas including: abstinence, interpersonal skills, safer sexual practices, and condom concepts.

- Grade 9 and 11 teachers (97%) agreed or strongly agreed that abstinence and safer sex practices should be part of HIV/AIDS instruction.
- 91% of grade 9 and 97% of grade 11 teachers disagreed or strongly disagreed with this statement: "Abstinence is the only method of HIV/ AIDS prevention that should be taught."
- 94% of grade 9 and 97% of grade 11 teachers agreed or strongly agreed that instruction about HIV/AIDS prevention requires information about interpersonal skills.
- 91% of grade 9 and 94% of grade 11 teachers disagreed or strongly disagreed that teaching about safer sexual practices encourages sexual activity.
- 88% of grade 9 and 82% of grade 11 teachers agreed or strongly agreed that condoms should be readily accessible to young people.
- 67% of grade 9 and 52% of grade 11 teachers agreed or strongly agreed that a person who carries a condom is probably promiscuous.

Table 1: Teacher Specific Attitudes about HIV/AIDS-Related Instructional Ideas Strongly Disagree Strongly Agree Disagree Agree Ideas Grade Grade Grade Grade 9 11 9 11 9 11 9 11 Abstinence and Safer Sex 3% 0% 0% 3% 9% 15% 88% 82% Abstinence Only 56% 47% 35% 50% 9% 3% 0% 0% Interpersonal Skills 3% 3% 0% 47% 47% 3% 44% 53% Safer Sex Encourages Activity 61% 44% 30% 50% 9% 6% 0% 0% 38% Accessible Condoms 9% 3% 3% 16% 64% 44% 24%

0%

0%

6%

Discussion

Condoms and Promiscuousness

Teachers of both grades had a high level of knowledge and tolerant attitudes. However, levels of teacher knowledge or attitudes were not significantly related to the level of the students' knowledge and attitudes. Therefore, other factors must be influencing the knowledge and attitude gains of students. For example, it was found in this study¹ that factors such as the type of teaching strategy

33%

48%

used, type of training and the resources available to teachers and students were related to higher levels of knowledge and attitudes.

10%

61%

42%

A majority of teachers agreed that while abstinence should be taught so also should safer sex. Most teachers also agreed that it was important to teach students interpersonal skills, and to make condoms accessible.

See HIV/AIDS Education in Schools Evaluation: Research Report, Series Report: 1.

Relationship Between Teacher Preparation Variables and Overall Knowledge and Attitudes

In this study the analysis of teacher preparation included three variables. They were:

- 1) types of training
- 2) perception of adequacy of training
- perception of being informed about HIV/AIDS prevention.

The findings are reported in Table 2.

 There was a significant relationship between the type of training and overall knowledge and attitudes of grades 9 and 11 teachers as well as grades 9 and 11 students.

Inservice training only, or inservice training in combination with university courses or reading professional journal articles, was related to the highest mean overall teacher and student knowledge and attitude scores for both grades 9 and 11.

Table 2: Effects of Teacher Preparation Variables on Overall Knowledge and Overall Attitudes of Students and Teachers²

Teacher	Student Overall	Student Overall	Teacher Overall	Teacher Overall
Preparation	Knowledge	Attitudes	Knowledge	Attitudes
Variables	Gr 9 and 11			
Type of Training	significant positive	significant positive	significant positive	significant positive
	relationship with	relationship with	relationship with	relationship with
	inservice training	inservice training	inservice training	inservice training
Perception of Adequacy of Training	no significant relationship	no significant relationship	no significant relationship	no significant relationship
Perception of Being Informed about HIV/AIDS Prevention	no significant relationship	no significant relationship	no significant relationship	no significant relationship

² Relationships were analyzed using one-way analysis of variance with the Scheffe test of significance. The alpha level for statistical significance was set at ≤ .05.

Summary

Generally, both grade 9 and grade 11 teachers had high levels of knowledge and attitudes. These teachers not only felt informed but actually were informed about HIV/AIDS. Knowledge and attitudes were highly correlated, suggesting that the more knowledge teachers have the more tolerant their attitudes.

Teachers' level of knowledge and attitudes were not significantly related to the level of knowledge and attitudes of students. However, having had inservice training was positively related to student knowledge and attitudes for both grade 9 and grade 11. In addition, teaching in the classroom setting, bringing in other resources (e.g., someone with HIV/AIDS, videos and films) and using print resources were related to higher levels of student knowledge and attitudes in the area of HIV/AIDS. This finding reinforces the importance of teacher training and of making resources available to both teachers and students.

Teachers identified three important areas. These were:

- instruction on abstinence and safer sex
- · instruction in interpersonal skills
- · accessible condoms.

The majority did not believe that only abstinence should be taught nor that teaching safer sex encourages sexual activity.

HIV/AIDS Instructional Context

Instructional Variables

The variables included in the following section were reported during the study period.

Number of Classes

- Grade 9 teachers presented between 1 and 9 classes on HIV/AIDS. The mean number of classes was 4 and the standard deviation was 2.
- Grade 11 teachers presented between 1 and 10 classes on HIV/AIDS. The mean was 4 classes and the standard deviation was 3.

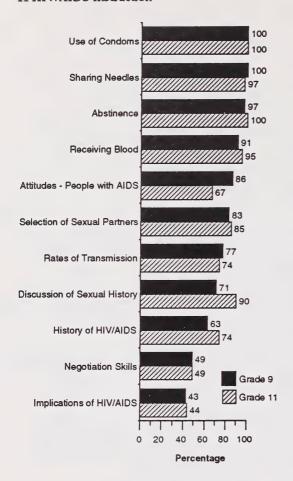
Length of Classes

- The mean length of time for grade 9 HIV/AIDS class periods was 52 minutes, with a standard deviation of 16.
- The mean length of time for grade 11 HIV/AIDS class periods was 53 minutes, with a standard deviation of 18.

Topics Included in HIV/AIDS Classes

- The topics included by almost all grade 9 and grade 11 teachers were:
 - use of condoms (100%)
 - abstinence (97% and 100%, respectively)
 - sharing needles (100% and 97%, respectively)
 - receiving blood (91% and 95%, respectively).
- The topics included by considerably fewer teachers in grade 9 and grade 11 were:
 - implications of HIV/AIDS (43% and 44%, respectively)
 - negotiation skills (49% for both grades 9 and 11).

Figure 12: Topics Included in Grade 9 and Grade 11 HIV/AIDS Instruction



Courses that Included HIV/AIDS Instruction

- 100% of the grade 9 students reported that HIV/ AIDS instruction was provided as part of the Health and Personal Life Skills course.
- 100% of the grade 11 students reported that HIV/ AIDS instruction was provided as part of the Career and Life Management 20 course.

Discussion

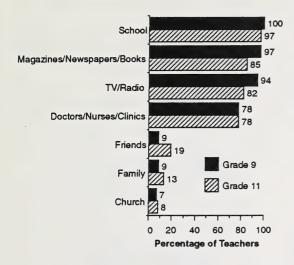
Alberta Education has provided curricular documents for the teaching of HIV/AIDS. Overall, most grade 9 and grade 11 teachers taught the suggested number of classes (2 to 4) within the suggested courses (i.e., Health and Personal Life Skills, and Career and Life Management).

There were topics that a large majority (80% or more) of both grade 9 and grade 11 teachers taught. These topics were: use of condoms, sharing needles, abstinence, receiving blood, and selection of sexual partners. More grade 9 teachers taught about attitudes towards people with HIV/AIDS than did grade 11 teachers. More grade 11 teachers than grade 9 teachers gave information on discussion of sexual history, and the history of HIV/AIDS. Topics less discussed by teachers of both grades (50% or fewer) were negotiation skills, and the implications of HIV/AIDS.

HIV/AIDS Information Sources Available to Students

- Teachers generally viewed the school, magazines/newspapers/books, TV/radio and doctors/nurses/clinics as sources that were doing a very good or fairly good job of HIV/AIDS education.
- Teachers generally viewed church, friends and family as doing a fairly poor or very poor job of HIV/AIDS education.

Figure 13: Teacher Rating of HIV/AIDS
Information Sources Available to Students



Discussion

When teachers identified how good a job was being done by various sources of information about HIV/AIDS available to students, two groups became evident. The first group was identified by most teachers (75% or more) as good or fairly good sources of HIV/AIDS information. These were: school, magazines/newspapers/books, TV/radio and doctors/nurses/clinics. The second group was identified by few teachers (20% or fewer) as good or fairly good sources of HIV/AIDS information. This group consisted of family, friends and the church.

Strategies Used in HIV/AIDS Instruction

As indicated in the *Research Report, Series No.* 1, one of the two research questions determined the effects of three overall instructional strategies on students' knowledge and attitudes, including intentions about future behaviour of grade 11 students. Students in the post-treatment group were requested to identify which strategy had been used for providing HIV/AIDS instruction in their class. The three overall strategies were:

- primarily by a teacher in regular classroom activities
- primarily by a guest in classroom activities, that is, either a health professional, a speaker from a community HIV/AIDS organization, or a person who has HIV/AIDS
- 3) primarily by a teacher in an alternative to regular classroom activities; e.g., everyone in the gym for a presentation.

The effects of the three overall strategies with different items of support were assessed.

Teacher Preparation Related to Instructional Strategies Used

In schools where HIV/AIDS instruction was provided primarily by a teacher in regular classroom activities (which was found to be the most effective instructional strategy), high percentages of the teachers had had inservice training.

- 96% of grade 9 teachers who provided HIV/AIDS instruction primarily by themselves in regular classroom activities reported that they had inservice training, either by itself or in combination with university courses and/or reading professional journals.
- 85% of grade 11 teachers who provided HIV/ AIDS instruction primarily by themselves in regular classroom activities reported that they had inservice training, either by itself or in combination with university courses and/or reading professional journals.

Summary

Almost all of both grade 9 and grade 11 teachers provided instruction on use of condoms, sharing needles, abstinence, and receiving blood. Interestingly, the level of student knowledge in these areas was high except in the case of receiving blood. Although in Canada, as a result of screening procedures, the risk related to blood transfusions is extremely low, students still fear the receiving of blood. Possible explanations for this finding (i.e., a majority of teachers teaching in this area and students having a low level of knowledge) are:

- Lack of item specificity to blood transfusions in Canada at the time of data collection.
- Teachers themselves believe that blood transfusions are risky. This explanation is quite possibly based on the low knowledge score that teachers had on this question. (See Series Reports: 3 and 4.)
- Students are not believing what teachers have said because of conflicting information they have received from the media (magazines/papers/ books and TV/radio).

A higher percentage of grade 9 than grade 11 teachers focused on attitudes towards people with HIV/AIDS. In contrast, a higher percentage of grade 11 than grade 9 teachers focused on discussion of one's sexual history and the history of HIV/AIDS. Fewer than half of grade 9 and grade 11 teachers gave instruction in the areas of negotiation skills and implications of HIV/AIDS.

Consistent with students, teachers identified school, magazines/papers/books, TV/radio and doctors/nurses/clinics as doing a good job of informing students about HIV/AIDS. However, students rated the job that family and friends were doing higher than did teachers.

Overall, HIV/AIDS instruction provided primarily by a teacher in regular classroom activities was most consistently effective for grade 9 and grade 11 students. In addition, teacher use of supports such as audio-visual resources (films or videos), guests and/or print resources was effective. These results are provided in detail in the full research report of this study.

Teacher and Student Print Resources

Teacher Report of Use and Rating of Student Print Resources

The second research question for the study was to determine the effects of four different uses of two specific student print resources (or combinations of the two) on grade 9 and 11 students' knowledge and attitudes, including intentions about future behaviour.

As a result of finding no significant relationship between the provision of instruction and intentions about healthier future sexual behaviour for grade 9 students, further analysis of intentions about future behaviour for grade 9 students was not completed.

As described in the *Research Report, Series Report:* 1, the student resources were used in four different ways and the effects of each were measured.

The student resources were not considered to be representative of those that were available at the time of the study; they were the ones that had been provided to schools and were being assessed. The two student resources were:

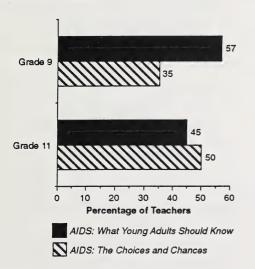
- 1) AIDS: What Young Adults Should Know
- 2) AIDS: The Choices and Chances.

AIDS: What Young Adults Should Know was provided for both grade 9 and 11 students in 1988. In 1989, AIDS: The Choices and Chances was suggested for use with grade 11 students. Alberta Health, in consultation with Alberta Education, made these student resources available to school superintendents upon request.

In most instances, using a combination of the two resources was related to higher level of knowledge, more tolerant attitudes for grade 9 students, and for grade 11 students, a higher level of knowledge and more tolerant attitudes (including more likelihood of reporting intentions of healthy sexual behaviour in the future).

- AIDS: What Young Adults Should Know was used with 57% of grade 9 students and 45% of grade 11 students.
- AIDS: The Choices and Chances was used with 35% of the grade 9 classes and 50% of grade 11 classes.

Figure 14: Teacher Report of Use of AIDS: What Young Adults Should Know and AIDS: The Choices and Chances



- Of grade 9 teachers who used AIDS: What Young Adults Should Know with students, 70% rated it as very useful, 23% said it was fairly useful, and 4% rated the resource not very useful.
- Grade 11 teachers who used AIDS: What Young Adults Should Know, rated it as either very useful (48%) or fairly useful (52%).
- 81% of grade 9 teachers who used AIDS: The Choices and Chances, rated it as very useful and 13% rated it as fairly useful; 6% rated the resource as not very useful.
- Grade 11 teachers who used AIDS: The Choices and Chances, rated it as follows: very useful (66%), fairly useful (31%) and not very useful (3%).

 29% of the grade 9 teachers reported that they gave AIDS: What Young Adults Should Know to the students, and 35% of grade 11 students were given a copy to keep. 34% of grade 9 students and 51% of grade 11 students were given AIDS: The Choices and Chances to keep.

Figure 15: Teacher Rating of AIDS: What Young Adults Should Know

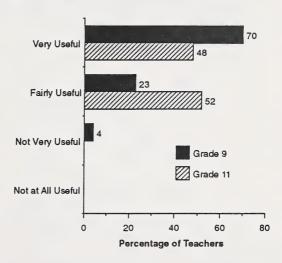
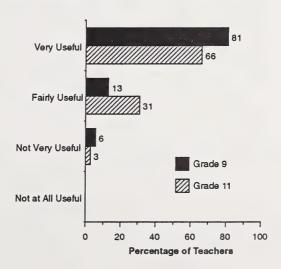


Figure 16: Teacher Rating of AIDS: The Choices and Chances



Discussion

Teachers of both grades used the resources AIDS: What Young Adults Should Know and AIDS: The Choices and Chances. However, consistent with what Alberta Education recommended, AIDS: The Choices and Chances was more frequently used by grade 11 teachers. Grade 9 teachers identified both resources as very useful more often than grade 11 teachers. However, teachers of both grades considered both resources either fairly or very useful.

Teacher Report of Use and Rating of Teacher Print Resources

In addition to the student print resources, two teacher resources were provided. Teachers were asked if they used the resources and to rate the resources.

The resources were not considered to be representative of those that were available at the time of the study; they were the ones that had been provided to schools and were being assessed. The two teacher resources were:

- 1) AIDS: What Young Adults Should Know Teacher Guide
- Teaching AIDS A Resource Guide on Acquired Immune Deficiency Syndrome

AIDS: What Young Adults Should Know — Teacher Guide was provided for grade 9 teachers and Teaching AIDS — A Resource Guide on Acquired Immune Deficiency Syndrome was suggested for grade 11 teachers. Alberta Health, in consultation with Alberta Education, made these teacher resources available to school superintendents on request.

- 87% of grade 9 teachers and 68% of grade 11 teachers used AIDS: What Young Adults Should Know – Teacher Guide.
- Grade 9 teachers who used AIDS: What Young Adults Should Know Teacher Guide, rated it as: very useful (72%), fairly useful (24%), and not very useful (4%). The grade 11 teachers who used the resource rated it as very useful (49%) or fairly useful (51%).
- 82% of grade 9 teachers used Teaching AIDS A
 Resource Guide on Acquired Immune Deficiency Syndrome, and 70% of grade 11 teachers used it.
- Of grade 9 teachers who used Teaching AIDS —
 A Resource Guide on Acquired Immune Deficiency
 Syndrome, 40% rated it as very useful, 40% considered it fairly useful, and 20% said it was not
 very useful. The grade 11 teachers who used it
 rated it as fairly useful (50%), and very useful
 (50%).

 80% of the grade 9 teachers and 70% of the grade 11 teachers reported that they used other teacher references including print and video resources.

Figure 17: Teacher Use of AIDS: What Young Adults Should Know — Teacher Guide and Teaching AIDS — A Resource Guide on Acquired Immune Deficiency Syndrome

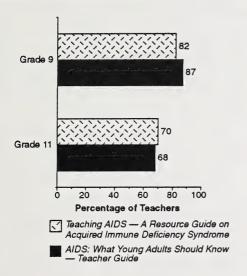


Figure 18: Teacher Rating of AIDS: What Young Adults Should Know — Teacher Guide

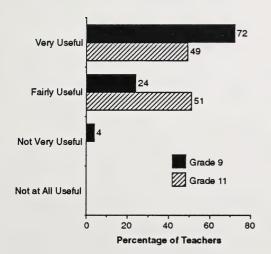
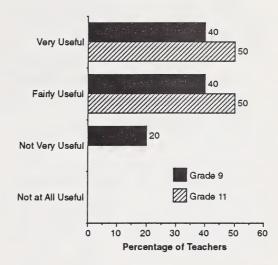


Figure 19: Teacher Rating of Teaching AIDS

— A Resource Guide on Acquired Immune

Deficiency Syndrome



Discussion

Although AIDS: What Young Adults Should Know—Teacher Guide was recommended for grade 9 and Teaching AIDS—A Resource Guide on Acquired Immune Deficiency Syndrome was recommended for grade 11, both resources were used (i.e., by more than 65%) by teachers of both grades. Overall, grade 9 teachers more frequently used both of the teacher's guides.

Most teachers of both grades found the two teacher's guides to be very or fairly useful. However more grade 9 teachers than grade 11 teachers found AIDS: What Young Adults Should Know — Teacher Guide to be very useful and more grade 11 teachers than grade 9 teachers found Teaching AIDS — A Resource Guide on Acquired Immune Deficiency Syndrome to be very useful.

Thus, while both resources were used by teachers of both grades and found to be useful for teachers of both grades, the resources recommended for the grade level were more frequently identified as most useful by teachers of both grades.

Relationship of Instructional Variables to Use of Resources

In schools where student print resources were used, high percentages of the teachers reported having had inservice training.

- 96% of teachers in grade 9 classes who used student print resources to support HIV/AIDS instruction reported that they had inservice training, either by itself or in combination with university courses and/or reading professional journals.
- 88% of teachers in grade 11 classes who used student print resources to support HIV/AIDS instruction reported that they had inservice training, either by itself or in combination with university courses and/or reading professional journals.

Summary

Fewer grade 9 than grade 11 teachers used the print resource AIDS: The Choices and Chances. This is consistent with the recommendation from Alberta Education, While AIDS: The Choices and Chances was not recommended for grade 9 students, an extremely high percentage of the grade 9 teachers found this resource to be very useful. A much higher percentage of grade 9 teachers than grade 11 teachers evaluated both of the student print resources as very useful. This may indicate that print resources are more important for students in this age range than for grade 11 students. However, when the categories of very useful and fairly useful were combined there was little difference between the grade 9 and grade 11 teachers' rating of the two print resources. Very few of all of the grade 9 and grade 11 teachers evaluated either of these two resources as not very useful. Overall, the teachers' evaluations of the two print resources were positive.

Although recommended for grade 9, the resource AIDS: What Young Adults Should Know — Teacher Guide was used in almost equal proportions by both grade 9 and grade 11 teachers. This resource was

rated higher by grade 9 teachers but both groups found it useful. It is not known why this resource was used more frequently by grade 11 teachers than the recommended resource (*Teaching AIDS* — *A Resource Guide on Acquired Immune Deficiency Syndrome*). It could possibly be because the accompanying student resource, *AIDS: What Young Adults Should Know*, had been suggested for both grade 9 and 11 students.

Although a high percentage (82%) of grade 9 teachers used the *Teaching AIDS* — A *Resource Guide on Acquired Immune Deficiency Syndrome*, only 40% thought this guide was very useful. In fact 20% said that this guide was not very useful. In contrast, while fewer grade 11 teachers used *Teaching AIDS* — A *Resource Guide on Acquired Immune Deficiency Syndrome*, 50% thought this guide was very useful and all of the grade 11 teachers who used the guide felt it was either very useful or fairly useful. This guide seems more appropriate for teachers who are teaching grade 11. This is consistent with the Alberta Education recommendation. However, it is difficult to say why the resource was not used by a higher proportion of grade 11 teachers.

Conclusions and Implications

Teachers in this sample scored high on measures of knowledge and attitudes about HIV/AIDS and felt that they were informed about HIV/AIDS. Teachers gave instruction in a wide variety of areas. However, some topics were covered by more teachers than other topics. The areas of instruction most often omitted were negotiation skills and implications of HIV/AIDS. It is possible that, due to time restrictions, these topics were covered in other parts of the comprehensive sexuality instruction program.

It was surprising to find that the teachers' level of overall knowledge and attitudes were not significantly related to students' levels of overall knowledge and attitudes. Intuitively, it would be expected that the more teachers know or the more tolerant their attitudes are, the more the students would know and the more tolerant their attitudes would be.

There were other instructional factors then, that are related to an increase in the levels of knowledge and attitudes of grade 9 and grade 11 students. Some of these factors are the teaching strategy (e.g., teaching by the teacher in regular classroom activities), the teaching supports that the teacher utilizes (e.g., a person with HIV/AIDS or a health professional speaking to the classes, and audio-visual aids) print resources, and inservice training of teachers. Students of teachers who had attended inservice training had significantly higher levels of knowledge and attitudes.

A majority of teachers had received inservice training and felt that it had adequately prepared them to instruct students in the area of HIV/AIDS. However, two other smaller groups were found. These two groups were not compared to determine if they were mutually exclusive. They were:

- those who had received no training in the area of HIV/AIDS or had only read journal articles
- those who did not feel their training was adequate.

Because we know that teachers who have inservice training have students with higher levels of knowledge and attitudes, it may be argued that there is a need to encourage all teachers to take inservice training. Teachers who did not feel their training was adequate could help those planning inservice training to develop a program that would meet the greatest number of needs.

While the school was identified as a good source of HIV/AIDS information by the greatest numbers of teachers, other sources of information were also identified. The sources most frequently identified were magazines/newspapers/books, TV/radio, and doctors/nurses/clinics. Fewer teachers indicated the following as sources of information: family, friends, and the church/synagogue. More students than teachers rated family and friends as doing a good job. This research did not explore why this discrepancy in perception exists.

Overall, the teachers found student print resources to be very useful. The use of these print resources in the classroom was significantly related to a higher level of knowledge and more tolerant attitudes. However, the giving of print resources to students to keep did not result in higher knowledge and attitudes scores. Therefore, it would be economically responsible and effective to have a class set of print resources accessible to students, but not to give each student a copy of the print resource to keep.

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ACKNOWLEDGMENTS

The following contributions to the HIV/AIDS Education in Schools Evaluation are gratefully acknowledged: Students, teachers, principals and school superintendents for their participation in the study;

Lorne Seaman and Associates, for project management and data collection;

Maryanne Doherty-Poirier and Brenda Munro, Department of Family Studies, Faculty of Home Economics, University of Alberta, for data analysis and report writing;

The Working Group on HIV/AIDS Education in Schools (1987-91) for on-going contribution to the design and implementation of the project:

Lola Anderson (1987-88), Education Director, AIDS Calgary;

Phyllis Craig, Manager, AIDS Program, Alberta Health;

Bev Curtis (1987), Manager, Sexual Health Program, Alberta Health;

Sandi Darrell (1987-89), Education Co-ordinator, School Health, Alberta Health;

Maryanne Doherty (1987-90), Curriculum Design Co-ordinator, Curriculum Branch, Alberta Education;

Linda Findlay, Co-ordinator, AIDS Education in Schools, AIDS Program, Alberta Health;

Bill Gordon, Counsellor, Bev Facey High School, County of Strathcona;

Alexandra Hildebrandt (1987-89), Co-ordinator, Social Studies, Health and Physical Education, Curriculum Branch, Alberta Education;

Bertha Kress (1988-89), Acting Education Supervisor, Sexually Transmitted Disease Control, Alberta Health:

Gillian Piper (1987-88), Education Supervisor, Sexually Transmitted Disease Control, Alberta Health;

Janet Thorpe, Director, Community Health Nursing, Sturgeon Health Unit;

Kathy Turner (1989-91), Education Supervisor, Sexually Transmitted Disease Control, Alberta Health;

Gina Vivone (1990-91), Co-ordinator, Health and Physical Education, and Career and Life Management, Curriculum Branch, Alberta Education;

Karen Whyte (1988-90), Education Director, AIDS Calgary;

The Steering Committee for the HIV/AIDS Education in Schools Evaluation for providing direction throughout the project:

Phyllis Craig, Manager, AIDS Program, Alberta Health;

Linda Findlay, Co-ordinator, AIDS Education in Schools, AIDS Program, Alberta Health;

Ray La Fleur (1988-90), Director, Program Evaluation and Review Branch, Alberta Health;

Keith McLaughlin (1990-91), Manager, Special Projects, Program Evaluation and Review Branch, Alberta Health:

Gina Vivone, Co-ordinator, Health and Physical Education, and Career and Life Management, Curriculum Branch, Alberta Education;

Other contributors for specific expertise:

Sharon Belicek, Senior Communications Consultant, AIDS Program, Alberta Health;

John Burger, Assistant Director, Policy and Evaluation, Alberta Education;

Jim Brackenbury, Assistant Director, Curriculum Branch, Alberta Education;

Leslie Gardner, Assistant Director, Program Evaluation and Review Branch, Alberta Health;

John Gartrell, Professor, Department of Sociology, Faculty of Science, University of Alberta and Center for Well-Being;

Cathy Krysa, Consultant, C.A. Krysa and Associates;

Bryce Larke, Medical Director, AIDS Program, Alberta Health;

Jean Olynyk, Public Affairs Officer, Communications Branch, Alberta Education.



